

# TRAITÉ DE COOPÉRATION EN MATIÈRE DE BREVETS

## PCT

### RAPPORT PRÉLIMINAIRE INTERNATIONAL SUR LA BREVETABILITÉ (chapitre I du Traité de coopération en matière de brevets)

(règle 44bis du PCT)

Référence du dossier du déposant ou du mandataire B14432.3 LP	<b>POUR SUITE À DONNER</b>		Voir le point 4 ci-dessous
Demande internationale no. PCT/FR2005/050172	Date du dépôt international ( <i>jour/mois/année</i> ) 18 March 2005 (18.03.2005)	Date de priorité ( <i>jour/mois/année</i> ) 22 March 2004 (22.03.2004)	
Classification internationale des brevets (8 <sup>e</sup> édition, sauf indication d'une #dition antérieure) Voir les informations pertinentes dans le formulaire PCT/ISA/237			
Déposant COMMISSARIAT A L'ENERGIE ATOMIQUE			

1. Le présent rapport préliminaire international sur la brevetabilité (chapitre I) est établi par le Bureau international au nom de l'administration chargée de la recherche internationale selon la règle 44bis.1.a).

2. Ce RAPPORT comprend un total de 7 feilles, y compris la présente feuille de couverture.

Dans les feilles jointes, toute référence à l'opinion écrite de l'administration chargée de la recherche internationale doit être entendue, à la place, comme une référence au rapport préliminaire international sur la brevetabilité (chapitre I).

3. Le présent rapport contient des indications relatives aux points suivants :

<input checked="" type="checkbox"/>	Cadre n° I	Base de l'opinion
<input type="checkbox"/>	Cadre n° II	Priorité
<input type="checkbox"/>	Cadre n° III	Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle
<input type="checkbox"/>	Cadre n° IV	Absence d'unité de l'invention
<input checked="" type="checkbox"/>	Cadre n° V	Déclaration motivée selon l'article 35.2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration
<input checked="" type="checkbox"/>	Cadre n° VI	Certains documents cités
<input type="checkbox"/>	Cadre n° VII	Certaines irrégularités relevées dans la demande internationale
<input checked="" type="checkbox"/>	Cadre n° VIII	Certaines observations relatives à la demande internationale

4. Le Bureau international communiquera le présent rapport aux offices désignés conformément aux règles 44bis.3.c) et 93bis.1 mais pas avant l'expiration du délai de 30 mois à compter de la date de priorité (règle 44bis.2), sauf si le déposant a présenté une requête expresse à cet égard en vertu de l'article 23.2).

Date d'établissement du présent rapport  
01 November 2006 (01.11.2006)

Bureau international de l'OMPI 34, chemin des Colombettes 1211 Geneva 20, Switzerland no de télécopieur +41 22 338 82 70	Fonctionnaire autorisé  Athina Nickitas-Etienne e-mail: pt04@wipo.int
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# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

TRANSLATION  
PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Applicant's or agent's file reference <b>B14432.3 LP</b>		See form PCT/ISA/210 Date of mailing (day/month/year)	
International application No. <b>PCT/FR2005/050172</b>	International filing date (day/month/year) <b>18.03.2005</b>	FOR FURTHER ACTION See paragraph 2 below Priority date (day/month/year) <b>22.03.2004</b>	
International Patent Classification (IPC) or both national classification and IPC <b>H01 M8/12, H01 M4/86, H01 M8/02, H01 M4/88</b>			
Applicant <b>COMMISSARIAT A L'ENERGIE ATOMIQUE</b>			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material  
 in written format  
 in computer readable form
  - c. time of filing/furnishing  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																									
<p>1. Statement</p> <table> <tr> <td>Novelty (N)</td> <td>Claims</td> <td>2, 4, 8-16, 18</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>1, 3, 5-7, 17</td> <td>NO</td> </tr> <tr> <td>Inventive step (IS)</td> <td>Claims</td> <td>2, 4, 8-16, 18</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td>1, 3, 5-7, 17</td> <td>NO</td> </tr> <tr> <td>Industrial applicability (IA)</td> <td>Claims</td> <td>1-18</td> <td>YES</td> </tr> <tr> <td></td> <td>Claims</td> <td></td> <td>NO</td> </tr> </table>			Novelty (N)	Claims	2, 4, 8-16, 18	YES		Claims	1, 3, 5-7, 17	NO	Inventive step (IS)	Claims	2, 4, 8-16, 18	YES		Claims	1, 3, 5-7, 17	NO	Industrial applicability (IA)	Claims	1-18	YES		Claims		NO
Novelty (N)	Claims	2, 4, 8-16, 18	YES																							
	Claims	1, 3, 5-7, 17	NO																							
Inventive step (IS)	Claims	2, 4, 8-16, 18	YES																							
	Claims	1, 3, 5-7, 17	NO																							
Industrial applicability (IA)	Claims	1-18	YES																							
	Claims		NO																							
<p>2. Citations and explanations:</p> <p>1 Reference is made to the following documents:</p> <p>D1: PATENT ABSTRACTS OF JAPAN vol. 2003, no. 12, 5 December 2003 (2003-12-05) &amp; JP 2004 087491 A (MATSUSHITA ELECTRIC IND CO LTD), 18 March 2004 (2004-03-18). Use of document EP1403947 as translation.</p> <p>2 INDEPENDENT CLAIM 1</p> <p>2.1 The present application fails to comply with the requirements of PCT Article 33(1) since the subject matter of claim 1 does not meet the requirement of novelty defined in PCT Article 33(2). Document D1 describes (the references between parentheses apply to this document): a solid electrolyte layer between two porous electrode layers (MEA). The electrode layers comprise regions of porosity that are different by compression (densification) of the diffusion layer of the electrodes (page 4, paragraphs 24-26; page 5, paragraph 39). The MEA then lies between two bipolar plates.</p>																										

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Box No. V      Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

3      DEPENDENT CLAIMS 3, 5-7, 17

The claims do not contain any features which, in combination with the features of any one claim to which they refer, meet the requirements of the PCT in respect of novelty and inventive step (PCT Article 33(2) and (3)).

4      DEPENDENT CLAIMS 2, 4, 8-16, 18

The combination of the features of claims 2, 4, 8-16, 18 is not included within the prior art and does not follow therefrom in an obvious manner, for the following reasons:

the prior art does not disclose an SOFC fuel cell (see comment in Box VIII) comprising a compact zone in the electrode having a lower porosity than the porosity of the rest of the electrode, and with the same thickness. The same applies in the case of fittings between the bipolar plate and the electrode layer.

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Box No. VI Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
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2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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See form 210

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. It is clearly apparent from the description and from the drawings that the following feature is essential to the definition of the invention:

1) the fuel cell in question is of the SOFC type

PEMFC fuel cells may also have a solid electrolyte layer, but the invention does not relate to this type of fuel cell.

Since independent claim 1 does not contain this feature, it does not meet the requirement following from PCT Article 6 taken in combination with PCT Rule 6.3(b) that any independent claim must contain all the technical features essential for the definition of the invention.